

# Operational Risk Management

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Failure to conduct efficient operational risk management can cause unnecessary accidents. A few simple operational risk management procedures can reduce accidents and increase Soldier safety.

**A**rmy risk management doctrine is second to none in its depth, breadth, and clarity, yet many leaders fail to take advantage of the power of existing tools to accomplish missions safely. The most serious accidents (classes A through C) still occur in significant numbers despite the use of existing risk management tools. Changes must be made if the Army is to achieve breakthrough results in safety and entrench risk management in its culture. The purpose of this article is to demonstrate how current practices in the application of risk management doctrine at the unit level prevent the Army from reaching its safety goals and to propose modifications to the risk management worksheet that will correct those practices.

## Ineffective Practices

While deployed to Baghdad from November 2007 to January 2009, I served as the company commander of the 57th Transportation Company and reviewed risk assessments for more than 800 missions. I also observed the battalion commander review more than 2,000 logistics convoys. While in Baghdad, my unit served under two Active Army support battalions from two installations and received convoy escorts from three different Army Reserve Infantry companies.

I observed a number of ineffective practices that were common among multiple units throughout the deployment. Many of these practices were the same ones that I was guilty of practicing as an airborne Infantry platoon leader. These practices included—

- ❑ Allowing risk to compound.

*A not-mission-capable piece of engineer equipment is loaded onto a trailer for transport from Forward Operating Base Hammer to Victory Base Complex.*

*Composite risk management requirements must be followed in this operation to ensure the safety of both personnel and equipment.*

- ❑ Using a previous risk assessment as a template without performing a mission-specific analysis.
- ❑ Completing the risk management worksheet (RMW) as an afterthought.
- ❑ Generating laundry lists of hazards and controls.
- ❑ Failing to enforce controls.
- ❑ Not reassessing risk as conditions changed.

During the deployment, the battalion commander was constantly training senior noncommissioned officers and junior officers to fix these practices.

Some will argue that these practices are isolated and are not widespread in the Army. However, conversations with peers, reviews of preliminary loss reports, data from the Army Combat Readiness/Safety Center, and personal experience all suggest that composite risk management has not yet become the norm in the Army.

## Compounding Risks

The most detrimental practice affecting the successful execution of missions is the failure to identify compounding risks. In nearly every serious accident, multiple factors combined to set the conditions for a mishap.





*An M1 Abrams tank is loaded onto a flatbed trailer for retrograde from a small base in Baghdad, Iraq, back to Victory Base Complex. Following composite risk requirements for loading the tank will help ensure that it arrives at its final destination without an accident.*

In isolation, the contributing factors would not likely have caused an accident; combined, the hazards resulted in catastrophe.

The stories frequently told by Soldiers about catastrophic events highlight inexperienced leaders in unfamiliar environments with improperly trained and supervised Soldiers using poorly maintained equipment. This reality emphasizes one of the major shortfalls of the RMW: Instructions for completing the worksheet state that the overall risk for a mission is determined by the hazard that has the highest residual risk. This would place a mission with five hazards having a residual risk of medium at the same risk level as a mission that has only one hazard with a medium risk level. Clearly, these two missions do not have the same risk level, yet there are no concrete procedures for addressing the increased risk of the first mission.

To address this shortfall, the instructions for the RMW should include a requirement to upgrade mission risk to the next level if the mission has four or more hazards at medium or high levels. Missions with low residual risk should be excluded because all of the hazards will have a residual risk of low.

A mission with four medium-level risks should be upgraded to high because of the effects of compounding risk. This informs the next-level authority of the level of difficulty of the mission with respect to the importance of the mission. That authority then may choose to bring more resources to bear, postpone the mission, or direct execution because of the mission's importance. Determination of hazard severity and probability is largely a judgment call by experienced leaders using subjective criteria. This method takes advantage of that experience and improves leader visibility of elevated risk missions.

### **Laundry List of Hazards and Controls**

The next negative practice is the inclusion of a laundry list of hazards and controls. This often results in a three- to five-page RMW. While long RMWs make

leaders feel more comfortable about all of the risks being addressed by controls, they do not result in safer operations.

I frequently found that critical hazard controls were buried under trivial ones. During my tour, a convoy commander

often read off a long list of hazards and controls at the end of an already long convoy brief. Few Soldiers listened to the litany of hazards and controls. Some of this was due to the repetitive nature of the missions, but some of it was also due to human limits for information retention.

Within the safety brief, the list of controls included actions such as rehearsals that were already complete and the designation of the minimum rank of the leader of the convoy. Rebriefing these controls provided information that the Soldiers did not need and initiated the mental trigger for them to stop paying attention. Also on the list were many known standards and regulations. Reinforcing the most relevant standards for a mission has significant value, but an extensive list has the opposite effect and negates any intended emphasis. As a result, Soldiers may have successfully executed the controls that prevent minor accidents but neglected the controls that prevent a catastrophe.

The Soldiers and leaders did not intend to execute some of the controls. I believe the primary cause for this trend was the dilution of emphasis and competition among the laundry list of tasks on the RMW. It is the approval authority's responsibility to provide clear, prioritized instructions free of nuance. The current form of the RMW does not set the conditions for this.

### **Foundation for Accident Prevention**

Although long risk assessments address every conceivable risk, they fail to provide a foundation for preventing the most serious accidents. The solution to this situation is twofold.

First, conduct a thorough risk assessment. Prioritize the list of hazards based on residual risk. Controls identified in the planning and preparation phase of the mission should be executed. Selecting the right level of leader for the mission, inspecting equipment, and conducting rehearsals are all essential elements to successful mission execution and should be part of company

standard operating procedures. Rehearsals in particular aid in developing the subconscious execution that is so critical to effective units. These controls, however, need not be reinforced in the mission brief as they are already completed. This leads to the second component of the solution.

During the mission brief, the controls requiring specific Soldier actions during execution, particularly those that are not routine, are the most important elements of the RMW. I call this component of the RMW "the execution list." Soldiers and noncommissioned officers already have a tremendous amount of information to process, and it is critical that they do not receive any that is unnecessary.

The number of hazards for a specific activity should be limited to seven on the execution list. This facilitates greater emphasis on the most salient hazards. It also provides leaders with specific areas on which to focus. Research shows that it takes many repetitions of a task to make it part of the subconscious. Limiting the number of hazards to seven improves the probability that Soldiers will listen to, remember, and execute the controls and that leaders will enforce them.

As specific controls are repeated and enforced over multiple cycles, nonprogrammed behaviors become programmed. Once a control becomes habitual, remove it from the RMW and move the next hazard by priority onto the execution list. This method results in a dependable ratcheting down of risk over time.

The approval authority should approve missions based on the full list of hazards and controls and validate the top seven hazards on the execution list. This will allow leaders to address lower risk hazards with specific controls in the mission planning phase while preventing the dilution of the most critical controls during execution.

### Reused RMWs

A secondary effect of long RMWs is the copying of risk assessments from previous missions without performing mission-specific analysis. During my tour, I required handwritten RMWs from leaders to combat this trend. Convoy commanders frequently handed the battalion commander risk assessments that contained hazards irrelevant to the current mission. Most officers have seen RMWs for winter operations that included hot-weather injury risks. While limiting the number of hazards for the execution list will not eliminate the tendency to reuse RMWs, it causes leaders to think harder about which hazards and controls are on that list.

### RMW Approval

The last habit to be addressed is the timing of the completion and approval of the RMW. One of the key characteristics of risk management is that it is a continuous process. Unfortunately, the current Army culture surrounding risk management involves a single evaluation that is rarely modified or reevaluated as the mission

progresses through planning and execution.

One of the lessons I learned as an approval authority was that reviewing the RMW the day of the mission did not provide the time needed to make adjustments. As mission execution gets closer, fewer risk control options are available. Identifying specific leaders for more difficult missions, rehearsals, and equipment inspections is a critical control that is not available as time runs out. Mission changes in this timeframe result in greater risk as leaders include unplanned activities in their timelines. This stress before execution often leads to confusion about priorities and results in the neglect of other controls. A leader racing out to notify Soldiers of modified timelines close to execution also causes subordinates to lose confidence in him.

The corresponding problem with completing the RMW too early is that conditions on the ground, such as enemy and weather, can change significantly or new hazards can emerge before execution, affecting mission risk. The solution to this problem is to include boxes on the right-hand side of the RMW for each hazard, where leaders can input the residual risk for hazards during planning, preexecution, and execution. The approval authority signs the risk assessment in the planning phase and may delegate the pre-execution and execution reevaluations one level down. Delegation of the reevaluation includes specific instructions about notification in the event that the hazards of the mission are upgraded because of changes in conditions. The approval authority may choose to retain direct reevaluation responsibility if he wishes.

Composite risk management doctrine is sound, but it is not embedded in Army culture. The operational risk management worksheet embeds this doctrine and will help the Army reduce on-duty accidents in a dramatic way over the long term. Operational risk management will help the Army keep its promise of "Mission First, Soldiers Always" by providing the right information at the right time, resulting in improved decisionmaking, resource allocation, Soldier survivability, and mission accomplishment.

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